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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,654	01/13/2006	Zhong Zhun	PHUS030235	1567
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EXAMINER ZEWDU, MELESS NMN				
ART UNIT 2617		PAPER NUMBER		
MAIL DATE 12/15/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,654

Applicant(s)

ZHUN, ZHONG

Examiner

Meless N. Zawdu

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13,15-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1,3,9,11,15-17,19,23 and 24 is/are rejected.
- 7) ☒ Claim(s) 4-8,10,12 and 20-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on 9/28/09.
2. Claims 2, 14 and 18 have been canceled.
3. Claims 1, 3-13, 15-17 and 19-22 are pending in this action.
4. This action is final.

Priority

The issue raised by examiner about improperly claiming foreign priority based on US provisional applications (see 60487423, filed on 7/15/03) and (60541870, filed on 2/4/04) has been resolved by applicant's statement asserting there is or was no a foreign priority claim associated with this application.

Claim Objections

Claim 1 is objected to because of the following informalities: on line 4, "an STA" should be --- the STA ---. Appropriate correction is required.

Claim 11 is objected to because of the following informalities: on lines 4-5, "an STA" should be --- the STA ---. Appropriate correction is required.

Claims 4-7, 12 and 2022 are objected to because of the following informalities: the claims include a conditional "if" phrase without providing the alternative. In this case,

it the recited "if" condition fails, the claims become indefinite. Appropriate correction is required.

Claim 13 is objected to because of the following informalities: on line 19, cancel one of "said or the", to avoid redundancy. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scherzer et al. (Scherzer) (US 7,031,336 B2) in view of Jeong et al. (Jeong) (US 2006/0111103 A1). For examination purpose only, claim 15 is considered first.

As per claim 15: Jeong discloses about an access Point in a wireless local network (WLAN) that provides priority to facilitate a handoff of a station (STA) between one or more Access Points (AP) (see figs. 1, paragraphs 0004, A, 2 and 4; abstract), (wherein the feature --- that provides priority to facilitates a handoff ---- is considered as an intended use for it does not enhance the body of the claim), comprising:

a probe request sensing unit for sensing when a probe request message has been sent on a particular communication channel (see abstract; paragraphs 0022-

0024, 0030-0032), (wherein the channel in which the probe is sent is interpreted as a particular channel or PCF channel);

an inter-frame communication sensing unit for sensing a point coordination inter-frame coordination (PIFS) on the particular communication channel (see paragraph 0012, 0120, 0126); and

probe response sending means for sending the probe response message after the PIFS sensed by the inter-frame communication sensing unit (see abstract; paragraphs 0022-0024, 0030-0032). It should be noted that a PIFS response is a function of a PIFS request, thus an inherent feature; i.e., the probe response message must be after the PIFS request is sensed/received. But, while disclosing --- A PIFS is only used by transmitting device operating under a Point Coordination Function (PCF) to gain priority access to a channel on the wireless medium at the start of a contention free period, Jeong does not explicitly teach about --- without performing a back-off interval. However, in the same field of endeavor, Scherzer teaches that --- if greater bandwidth utilization is desired, another type of medium access control called the Point Coordination Function (PCF) may be implemented. PCF specifies the use of special stations in APs denoted as point coordinators, which act to ensure contention-free (CF) service. PCF is a centrally based access control mechanism (as opposed to a distributed architecture) based on a polling and response protocol (see col. 1, line 66-col. 2, line 14). Here, one of ordinary skill in the art would understand ---- ensuring contention-free service is same as without performing back-off interval, since back-off interval is a function of contention based service. Therefore, it would have been obvious for one of ordinary skill in the art

at the time the invention was made to replace or modify Jeong's PCF with that of Scherzer for the benefit of ensuring contention-free service.

As per claim 16: Scherzer teaches about an access Point according, wherein the inter-frame communication sensing unit and the probe response means sense a distributed coordination function (DCF) inter-frame space period (DIFS) of a particular channel and respond to probe requests with non-unicast destination addresses after the (DIFS) and back-off interval (see col. 1, lines 32-43; col. 1, line 66-col. 2, line 14). The reference shows that DCF interframe spacing and DIFS are selectable.

As per claim 1: while the feature "a method for fast active scanning on a wireless local area network (WLAN) between a mobile station (STA) and at least one access point (AP)" is considered as an intended use (for it does not enhance the body of the claim), the features of claim 1 are similar to the features of claim 15, except claim 1 is directed to a method comprising steps intended/required to be performed by the apparatus of claim 15. Hence, since, the apparatus of claim is closed and the method is required by the apparatus, claim 1 is rejected on the same ground and motivation as claim 15.

As per claim 3: Jeong teaches about a method, wherein the probe request message is a uni-cast message (probe message) to the particular (AP) (see paragraphs 0028, 0103).

As per claim 9: Jeong teaches a method, wherein only the particular (AP) transmits after the (PIFS) inter-frame in response to receiving the uni-cast probe request message, from an STA (see paragraphs 0012, 0103, 0105; see also abstract and paragraphs 0010-0026).

As per claim 11: while the feature "a method for fast active scanning" in the preamble is considered as an intended use (for it does not enhance the body of the claim, the features of claim 11 are similar to the features of claim 15, except preparing a probe response message by the one particular (AP) , which examiner considers as obvious from the reception of the probe response message shown in the prior art point coordinate function system. Therefore, claim 11 is rejected on the same ground and motivation as claim 15.

As per claim 17: while "a fast active scanning system" in the preamble is considered as an intended use (for it does not enhance the body of the claim), the features of claim 17 are similar to the features of claim 15, wherein examiner interprets the feature --- a particular second station --- as being on of the stations (STA 55 or 40) in fig. 2 of the prior art. Hence, claim 17 is rejected on the same ground as claim 15.

As per claim 19: Jeong teaches a system, wherein the probe request message sent by the first station comprises a unicast message to the particular second station (see paragraphs 0028, 0103).

As per claim 23: while the feature "a first station in a wireless local area network that provides priority to facilitate a handoff between one or more second stations" in the preamble is considered as an intended use (for it does not enhance the body of the claim), the features of claim 23 are similar to the features of claim 15. Therefore, claim 23 is rejected on the same ground and motivation as claim 15.

As per claim 24: the feature of claim 24 is similar to the feature of claim 16. Hence, claim 24 is rejected on the same ground and motivation as claim 16.

Allowable Subject Matter

Claim 13 is allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or fairly suggest -- the mobile station authenticating and re-associating with said new access point, followed by the mobile station being handed off to said new access point, with the context of claim 13.

Claims 4-8, 10, 12 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Note: the objection of claim 8 is based on its dependence on claim 4.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 9/28/09 have been fully considered but they are not persuasive. Initially examiner would like to state that the previous action was not as clear as it should have been and regrets it. With regard to the claims rejected above, examiner found the applied references are valid and hence maintained. Applicant argues by saying the references failed to teach the feature --- without the particular

access point performing a back-off interval. However, as explained in the rejection of claim 15 above, Scherzer teaches that --- if greater bandwidth utilization is desired, another type of medium access control called the Point Coordinate Function (PCF) may be implemented. PCF specifies the use of special stations in APs denoted as point coordinators, which act to ensure contention-free (CF) service. PCF is a centrally based access control mechanism (as opposed to a distributed architecture) based on a polling and response protocol (see col. 1, line 66-col. 2, line 14). Here, one of ordinary skill in the art would understand ---- ensuring contention-free service is same as without performing back-off interval, since back-off interval is a function of contention based service. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to replace or modify Jeong's PCF with that of Scherzer for the benefit of ensuring contention-free service. Therefore, the argument has not been found being persuasive.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bost Dwayne D can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

/Meless N Zewdu/

Primary Examiner, Art Unit 2617

12/15/2009